

JPRS 76098

23 July 1980

China Report

AGRICULTURE

No. 92

FBIS

FOREIGN BROADCAST INFORMATION SERVICE

NOTE

JPRS publications contain information primarily from foreign newspapers, periodicals and books, but also from news agency transmissions and broadcasts. Materials from foreign-language sources are translated; those from English-language sources are transcribed or reprinted, with the original phrasing and other characteristics retained.

Headlines, editorial reports, and material enclosed in brackets [] are supplied by JPRS. Processing indicators such as [Text] or [Excerpt] in the first line of each item, or following the last line of a brief, indicate how the original information was processed. Where no processing indicator is given, the information was summarized or extracted.

Unfamiliar names rendered phonetically or transliterated are enclosed in parentheses. Words or names preceded by a question mark and enclosed in parentheses were not clear in the original but have been supplied as appropriate in context. Other unattributed parenthetical notes within the body of an item originate with the source. Times within items are as given by source.

The contents of this publication in no way represent the policies, views or attitudes of the U.S. Government.

PROCUREMENT OF PUBLICATIONS

JPRS publications may be ordered from the National Technical Information Service, Springfield, Virginia 22161. In ordering, it is recommended that the JPRS number, title, date and author, if applicable, of publication be cited.

Current JPRS publications are announced in Government Reports Announcements issued semi-monthly by the National Technical Information Service, and are listed in the Monthly Catalog of U.S. Government Publications issued by the Superintendent of Documents, U.S. Government Printing Office, Washington, D.C. 20402.

Indexes to this report (by keyword, author, personal names, title and series) are available from Bell & Howell, Old Mansfield Road, Wooster, Ohio 44691.

Correspondence pertaining to matters other than procurement may be addressed to Joint Publications Research Service, 1000 North Glebe Road, Arlington, Virginia 22201.

23 July 1980

CHINA REPORT**AGRICULTURE**

No. 92

CONTENTS**I. GENERAL INFORMATION****NATIONAL**

Henan, Shandong, Hebei Striving for Bumper Autumn Harvests (RENMIN RIBAO, 21 Jun 80).....	1
Scientists Appeal for Forests Protection (XINHUA, 10 Jul 80).....	3
Warning Against Pig Procurement Price Changes Issued (RENMIN RIBAO, 31 May 80).....	4
'Good' Spring Cocoon Harvest Reported (XINHUA, 10 Jul 80).....	6
Briefs	
Emergency Typhoon Warning	7
Heilongjiang Cultivation Meeting	7
Anhui	
Briefs	
Huaiyuan Combats Flood	8
Yingshang Flood Disaster	8
Cotton Production Circular	8
Chuxian Prefecture Rain Storm	8
Fengyang County Grain Output	8

Fujian

First Secretary Discusses Encouraging Use of Hilly Region (XINHUA Domestic Service, 7 Jul 80).....	9
-------------------------------------------------------------------------------------------------------	---

Briefs

PLA Antidrought Circular	12
--------------------------	----

Gansu

Briefs

Academic Forum	13
Forestry Work	13

Hebei

Hu Yaobang Instruction on Chestnut Production (Hebei Provincial Service, 29 Jun 80).....	14
---------------------------------------------------------------------------------------------	----

Heilongjiang

Briefs

Flood Prevention	15
Farm Pests	15
Grain Procurement	15
Forestry Production	15
Locust Extermination	15
Cattle Breeding Circular	16
Reservoir Project	16
Wheat Harvest	16
Flood Damage	16
Insect Pests	16
Rain and Hail Storm	17
High Temperatures	17
Dairy Industry	17

Henan

Measures for Increasing Autumn Harvest Adopted (Wang Biao; RENMIN RIBAO, 24 Jun 80).....	18
---------------------------------------------------------------------------------------------	----

Southern Part of Province Hit by Torrential Rains (XINHUA Domestic Service, 9 Jul 80).....	20
-----------------------------------------------------------------------------------------------	----

Urgent Meeting on Summer Grain Work Held (Henan Provincial Service, 5 Jul 80).....	22
---------------------------------------------------------------------------------------	----

Briefs

Cotton Management	23
-------------------	----

Hunan

Hunan Subsidizes Pork Sales (RENMIN RIBAO, 29 May 80).....	24
---------------------------------------------------------------	----

Jiangsu

Briefs	
Cotton Meeting	25
Precautions Against Flood	25
Torrential Rain	25
Zhenjiang Prefecture Agriculture	25
Xinghua County Agriculture	25

Jiangxi

Official Speaks on Rural Enterprises and Future Role of Communes (Jiangxi Provincial Service, 8 Jul 80).....	26
-----------------------------------------------------------------------------------------------------------------	----

Briefs	
Grain Exports	29
Reed Cultivation	29

Jilin

Briefs	
Hailstorm Damage	30
June Rain Storm	30
Natural Disasters	30

Liaoning

Briefs	
Minor Spring Sowing	31
Cotton Crop	31
Pine Moth	31
Agricultural Development Plan	31
Shenyang Food Bases	31
Pork Sales Promoted	32

Nei Monggol

Briefs	
Livestock Harvests	33

Qinghai

Briefs	
Nationality Conference	34
Animal Husbandry	34

Shaanxi		
Governor Calls for Strengthening Field Management (XINHUA Domestic Service, 8 Jul 80).....		35
Briefs		
Late Autumn Crops		36
Shandong		
Briefs		
Summer Harvest		37
Heavy Rains		37
Shanghai		
Briefs		
Vegetable Shortage		38
Qingpu County Wheat Harvest		38
Sichuan		
Briefs		
Rapeseed Production		39
Guanghan County Rapeseed Harvest		39
Rural Integrated Enterprises		39
Xizang		
Briefs		
Field Management Strengthened		40
Yunnan		
Briefs		
Summer Grain		41
Zhejiang		
Briefs		
Hog Production		42
Spring Grains		42
Hog Procurement		.42
Yiwu County Rice Production		42
Refrigerating Warehouses		42

ABSTRACTS

AGRICULTURAL SCIENCES

ZHONGGUO NONGYE KEXUE [SCIENTIA AGRICULTURA SINICA, No 3, 1979] 43

I. GENERAL INFORMATION

HENAN, SHANDONG, HEBEI STRIVING FOR BUMPER AUTUMN HARVESTS

Beijing RENMIN RIBAO in Chinese 21 Jun 80 p 1

[Article: "Give Close Attention to Summer Care and Summer Planting and Strive Hard For High Production of Autumn Grain. Henan, Shandong, and Hebei Adopt Measures to Have the Autumn Augment the Summer"]

[Text] The three provinces of Henan, Shandong, and Hebei, which account for 40 percent of the country's total wheat production, has had a good quality summer harvest this year, which is progressing rapidly. As of the present time, the harvest of wheat has been virtually completed, and most of the farm labor has been transferred to other farm tasks. It has also urgently been put to work on the summer care and summer planting of late autumn crops.

Because of the effects of low temperatures, the large amount of rainfall, and insufficient sunlight during spring, it is predicted that in most prefectures of these three provinces there will be a decline in production from the bumper wheat harvests of last year. In a small number of prefectures, however, there will be an increase in wheat production. During the harvest period, on the other hand, in most prefectures the skies are clear with little overcast or rain, which is advantageous for an early harvest of the wheat. Everywhere serious attention is now being given to thorough harvesting and complete threshing, and the storing of grain in warehouses in an effort to complete the summer harvest before the rainy season arrives so as to reduce, to the maximum extent possible, losses from mold and rot. In order to help the high wheat producing areas of Shijiazhuang in Hebei, Xinxiang in Henan, and Yantai in Shandong harvest their rice in good time, these three provinces have put a total of almost 20,000 small harvesting machines to work, mostly to help these high producing prefectures get their harvest in quickly.

One common characteristic of agriculture in these three provinces this year has been an all out effort to reverse the historical situation in which grain production has been high in the summer and low in the fall. Frenzied attention is being given to autumn grain so that the autumn output will supplement that of summer. Nanyang Prefecture in Henan, which suffered a serious disaster from hail, is now giving attention to the sowing of seeds and caring for the fields for the autumn crop. In many prefectures, not only was the growth of

the spring corn heartening, but even before the wheat was harvested, later autumn crops were being intercropped with it. Once the wheat has been harvested, the wheat stubble is already a shimmering green stretch of young seedlings. This year's summer planting was generally about 2 weeks earlier than previous years, and this means increased output of autumn grain. Inasmuch as intercropping makes for greater likelihood of skipped planting, numerous insect pests, low fertility, and more weeds than crops, some prefectures have resorted to the growing of seedlings for transplantation to places where there are blank spots, strengthening field care, making top dressings of fertilizer and protecting the plants so as to get a bumper harvest of autumn grain. Meanwhile everywhere there is further implementation of the policy of distribution according to work, doing a good job of linking the system of responsibility in output, and better arousing the enthusiasm for protection of the broad masses of commune members.

9432

CSO: 4007

NATIONAL

SCIENTISTS APPEAL FOR FORESTS PROTECTION

OW101300 Beijing XINHUA in English 1217 GMT 10 Jul 80

[Text] Beijing, July 10 (XINHUA)--A group of Chinese scientists have appealed to leaders at all levels to take resolute measures to protect the country's forests, the PEOPLE'S DAILY reports today.

Professor Fan Jizhou of the Beijing Institute of Forestry and 32 others who signed an appeal on July 2 had participated in two national surveys of forest resources, one conducted during the Fourth Five-Year Plan Period (1971-1975) and the other since 1977. The two surveys revealed that in many provinces and autonomous regions, more trees had been felled than planted, causing a decrease in China's afforested area.

The problem was so serious, the scientists said, that "on no account must we take light of it." "It affects the vital interests of the nation, the present generation and the succeeding generations."

The scientists demanded that the forestry law be enforced in earnest to protect existing forests. At the same time, the government should increase by a big margin the funds for tree-planting and raising saplings.

The appeal is featured on the frontpage of the newspaper and alongside it is a XINHUA news story about the recent circular issued by the Ministry of Forestry which calls for greater efforts to plant trees and raise saplings during the current rainy season.

The PEOPLE'S DAILY also reports that An Pingsheng, first secretary of the provincial party committee of Yunnan, announced the committee's decision to make new surveys of the forests in Xishuangbanna, the area in China's southwestern border region known as the "big tropical botanical garden." The purpose of the surveys is to find concrete ways of dealing with current problems of forest protection.

CSO: 4020

NATIONAL

WARNING AGAINST PIG PROCUREMENT PRICE CHANGES ISSUED

Beijing RENMIN RIBAO in Chinese 31 May 80 p 2

[Text] The joint notice issued by the Ministry of Commerce, the Ministry of Finance and the State General Commodity Prices Bureau on 26 May, which increased pork sales and supported pig production, also required that there be no changes anywhere in the procurement price for live pigs, that all economic policies which are beneficial to developing pig production should be steadily adhered to and that active measures should be taken to expand pork sales.

The notice states that since the third Central Committee plenum, there has been a great expansion of pig production, and many locations throughout the country have gradually reached the point of having an abundant supply of pork. This is an important indicator of improvement in this country's economic circumstances, and a very favorable occurrence. The main problem at present is that the sales volume has increased only very slightly, so that many localities have been forced to stop or limit procurement. When some communes and brigades saw that they would not be able to sell the pigs they raised, they altered the economic policy of encouraging commune members to raise pigs at home. If urgent steps are not taken, grave harm will be done to the development of pig production.

The notice points out that the expansion of pig production was hard-won, that it is always better to have too much meat than too little, that pig production cannot be decreased, that the procurement price cannot be changed, that the economic policy of supporting pig raising must be steadily adhered to, and that the pigs which the peasants put on the market must be procured. All urban and rural areas, whether production or sales areas, must have an abundant supply of pork. The fattened pigs consumed in the countryside must be handled through many channels. It suggests having the production teams slaughter pigs themselves and divide them up; with the permission of the relevant departments, they can organize socialized butchers or young people seeking employment for collective operations; in addition individuals may be permitted to slaughter pigs and sell the meat if there is no hired labor. In the cities, the policy of sales differentiated by cut and by fatness must be conscientiously followed, and the price difference between fat and lean

pork must be suitably expanded. The number of processed meat products and fancy varieties must be expanded, and the number of retail sales outlets increased; operating hours must be adjusted and every effort made to increase sales and stimulate business.

The notice also specifies that the provinces, municipalities and autonomous regions can effect timely decreases in the retail pork price in accordance with the supply and demand situation. Within a certain period they may waive the prok retail sales tax and the processing taxes on pork and egg products and lard. In order to solve the current problem of the peasants' having a relatively large oversupply of fattened pigs on hand, and the existence of excessive quantities in commerical storage, it has been decided to issue a further sum of money for subsidies, and temporarily to sell a certain quantity of pork at a decreased price; it has also been decided that from June to August the pork allotment prices will be decreased.

8480

CSO: 4007

'GOOD' SPRING COCOON HARVEST REPORTED

OW101326 Beijing XINHUA in English 1205 GMT 10 Jul 80

[Text] Beijing, July 10 (XINHUA)--China's major producers of silkworm cocoons report good harvest.

Sichuan Province, China's leading producer, gathered 36,000 tons of cocoons this spring, 20 per cent over the spring of last year. Both output and the increase set new records.

The province became the country's biggest cocoon producer in 1978 following the widespread planting of mulberry trees along roads and ditches and around fields, without occupying farmland. More than 13,000 hectares of land in the province have been planted to mulberry trees so far this year.

Zhejiang Province, the second biggest silkworm cocoon producer, gathered 32,000 tons of cocoons despite a long spell of wet weather and low temperature in the spring. The output was 2,000 tons higher than in 1972, the peak year after 1949.

Timely application of fertilizer raised the output of mulberry leaves. More than 200,000 silkworm raisers in Zhejiang were trained in turn last winter and this spring.

This spring's output in Jiangsu Province surpassed 15,000 tons. In comparison with last spring, output was up by 20 per cent, setting the post-liberation seasonal record.

Southermost Guangdong Province gathered seven to eight harvests of cocoons a year. The first and second harvests this year reached 5,430 tons of cocoons, a 10 per cent increase over the same 1979 period.

CSO: 4020

NATIONAL

BRIEFS

EMERGENCY TYPHOON WARNING--The Central Meteorological Observatory issued an emergency typhoon warning at 1000 GMT on 10 July. The center of this year's Typhoon No 6 moved to waters about 400 kilometers southeast of Shantou in Guangdong Province at 0600 GMT on 10 July, that is 21.2 degrees north and 119.8 degrees east. The maximum wind near the typhoon's center is from force 10 to force 11. The center of the typhoon is now moving northwest at 13 kilometers per hour. It is predicted that the center will continue its movement to the northwest and will hit the coastal areas from Guangdong's (Shanwei) to Fujian's Xiamen on the afternoon of 11 July. Because of the typhoon, wind force will gradually increase to 7-9 today and tomorrow on southern Taiwan, in the northeastern part of the South China Sea, in the Taiwan Straits, the coastal area of southern Fujian and the coastal area of eastern Guangdong. The wind near the typhoon's center will be from force 10 to 11. Heavy or torrential rains will fall on Taiwan, southern Fujian and most parts of Guangdong. Units concerned are requested to tune in to weather forecasts by local meteorological observatories and weather stations. [Text] [OW101359 Beijing Domestic Service in Mandarin 1200 GMT 10 Jul 80]

HEILONGJIANG CULTIVATION MEETING--The national meeting to interchange the plastic film mulching cultivation technique concluded in Harbin Municipality at the end of June following an 8 day session. The meeting was sponsored by the Science and Technology Bureau under the Ministry of Agriculture. Attending were 80 experts and professors from 26 provinces, municipalities and autonomous regions, including Beijing, Shanghai, Tianjin and Nei Monggol. Zhu Rong, vice minister of the Ministry of Agriculture, spoke at the meeting. The cultivation technique is used in vegetable production. Vegetable production can increase 50 percent and the output value 40 percent when the new technique is applied. [Harbin Heilongjiang Provincial Service in Mandarin 1100 GMT 4 Jul 80]

CSO: 4007

BRIEFS

HUAIYUAN COMBATS FLOOD--Some 100,000 persons in Anhui's Huaiyuan County have been mobilized to combat flood and waterlogging to protect the major dike in the Huabei area and autumn crops. Except 120,000 mu of low-lying farmland near the rivers, some 460,000 mu of autumn crops in Huaiyuan County were saved by 28 June. Statistics show that nearly 47 percent of the country's farmland was inundated. Led by 400 cadres, some 100,000 persons have been organized to protect the dikes and save the young crops. [Hefei Anhui Provincial Service in Mandarin 1100 GMT 4 Jul 80]

YINGSHANG FLOOD DISASTER--Cadres and masses of Anhui's Yingchang County are waging a struggle against flood and waterlogging triggered by heavy rainfall since late June. According to incomplete statistics compiled on 26 June, some 230,000 mu of farmland were inundated in Yingchang County. Thanks to hard work by 56,000 rural masses, water has been drained away from 87,000 mu of inundated farmland. The county has by now mobilized 8,000 cadres and civilian workers to reinforce all dikes along the Huaihe and Yinghe rivers. [Hefei Anhui Provincial Service in Mandarin 1100 GMT 4 Jul 80]

COTTON PRODUCTION CIRCULAR--The Anhui provincial people's government recently issued an urgent circular calling on all localities to strengthen cotton field management. The circular pointed out that cotton crops in many areas are seriously threatened by waterlogging resulting from the rainy weather since June and by weeds, plant diseases and insect pests. It called for effective measures to combat these adverse effects on cotton growth in order to insure a bumper harvest. [Hefei Anhui Provincial Service in Mandarin 1100 GMT 6 Jul 80]

CHUXIAN PREFECTURE RAIN STORM--Hefei, 5 Jul--Since mid-June, several counties in Chuxian Prefecture, Anhui, have been stricken by prolonged rain storm, and rainfall in general has reached 200 mm to 300 mm. Some communes and brigades have also been hit by storm wind and hail. As of 28 June, over 300,000 mu of farmland in the whole prefecture had been waterlogged. Over the past few days rain storm has still been ravaging in most parts of the prefecture. To combat this natural disaster, the prefecture has brought into full play the role of the system of job responsibility in production. [Beijing XINHUA Domestic Service in Chinese 1146 GMT 5 Jul 80]

FENGYANG COUNTY GRAIN OUTPUT--Hefei, 28 Jun--Fengyang County of Anhui Province has reaped a bumper harvest of summer grain this year. The total output of summer grain reached 200 million jin, a 10 percent increase over 1979. Despite serious drought last year, this county had planted 630,000 mu of wheat by December of 1979. [Beijing XINHUA Domestic Service in Chinese 0230 GMT 28 Jun 80]

FIRST SECRETARY DISCUSSES ENCOURAGING USE OF HILLY REGION

OW091444 Beijing XINHUA Domestic Service in Chinese 0702 GMT 7 Jul 80

[Text] Fuzhou, 7 Jul--At a recent conference to map out long-range plans for Fujian Province attended by secretaries of prefectural and municipal CCP committees, first secretary Liao Zhigao of the Fujian Provincial CCP Committee introduced to those attending the conference the experience of the Chengguan commune in Nan'an County in setting aside part of the hilly land owned by the commune and brigades for the production teams to use as base areas for growing tea, fruits and trees and to boldly let the production teams become well-to-do.

Fujian does not have much land but it has a large population. The average arable land per capita in the entire province is less than 8 fen. However, the province has large hilly areas averaging 7 mu or even more than 10 mu per capita in many counties. The average hilly area per capita is as high as 20 mu in some counties. There are also large tracts of hilly areas in some counties along the coast. However, over a protracted period, large tracts of barren hills and hillside fields have not been fully developed and utilized because most of the hilly areas belong to communes and production brigades and the production teams have no authority to use them.

How can we accelerate the development of Fujian's hilly region and help the province become well-to-do at an earlier date? In May of this year, Liao Zhigao went to the hilly region and toured more than 10 counties along the coast with this particular question in mind. He found that the experience of the Chengguan commune in Nan'an County in tackling this question was fairly good. This commune has more than 30,000 mu of arable land with an average of 4.3 fen per capita. However, the county has 117,000 mu of hilly areas with an average of more than 1.6 mu per capita.

In the past, the policy on the hilly areas was not settled. Although 80 percent of the production teams were near hilly areas, they did not own hillside fields. This affected the commune members' enthusiasm in developing the hillside fields. Therefore, most of the hilly areas were not fully utilized.

After the downfall of the "gang of four," the commune's CCP committee has come to realize that without bringing into full play the enthusiasm of the production teams, it is impossible to bring about rapid changes in the hilly areas. It has conducted an investigation and study. On the basis of the special features of the commune, it has stipulated that part of the hilly area that belongs to the production brigades must be set aside proportionally for the production teams to grow tea, fruits and trees. With the ownership unchanged, production teams can use the land over a protracted period. Commune members are permitted to grow fruit trees and trees around their houses, and these trees belong to the commune members who plant them. The commune's CCP committee has also stressed: The commune, production brigades and production teams are permitted to set up base areas for growing tea, fruits and trees. However, emphasis must be placed on production teams. Only thus, will it be possible for us to bring about quick developments, manage the base areas well and achieve good results. At the same time, it has also adopted several specific measures.

1. While running the tea plantations and fruit orchards owned by the commune and production brigades well, the commune distributed to production teams a 38,000 yuan subsidy, taken from the commune fund, 230,000 jin of grain and 120,000 dan of fertilizer to help them establish bases. In addition, the commune assisted them [to] cultivate tea, long-an, strawberries, peach and plum seedlings and bamboo shoots. Some 3 million tea and fruit seedlings were also imported from other places.

2. The commune also organized a "planning team" composed of 17 cadres and specialists to help production teams plan for establishing tea and fruit bases. With this team's assistance, the production teams have planted strawberries on a large scale on impoverished, sandy barren hills. Results have been very good. The 9th production team of the Shiqiang production brigade alone can reap over 1,000 dan of berries a year, worth over 10,000 yuan, nearly 30-yuan income for each person. At present, the commune as a whole has planted 95,000 red strawberries, averaging 30 per person. Some 3 or 4 years later, each person will have 300 yuan in income from berries alone.

3. The commune now has 261 professional teams and groups with 1,846 members, taking care of the management of the tea plantations and fruit orchards, thereby adding professional management to the peasants' efforts to plant fruits on barren hills.

4. Twice a year the commune also trains specialists in seedling cultivation, grafting and management for production teams.

Implementation of the policy plus effective measures have speeded up the commune's diversified economy with remarkable results. Today, in addition to the bases of the commune's 18 production brigades, 241 production teams, or 64.8 percent of the total, have established their own bases. Of the

commune's 70,000 mu of barren hills, some 6,000 mu of slopes below 25 degrees latitude are to be opened up to become paddies, 42,000 mu, or 55 percent, have been planted to tea, fruits, bamboo and forest trees, and the remaining more than 20,000 mu are being developed. In the past 3 years, the commune's income from tea, fruits and forest trees amounted to 3 million yuan. Some 1.1 million yuan has been distributed among the commune members, 600,000 yuan has been used to purchase farm machines and tools, chemical fertilizers, pesticides and other means of production, and 300,000 yuan has been used for agricultural capital construction.

Comrade Liao Zhigao said that the experience of the Chengguan commune, Nan'an County, pointed to a good method to accelerate the development of a diversified economy and is of great significance to Fujian Province where 80 percent of the area is hills, 10 percent rivers and lake and 10 percent farmland. If the whole province can do as well as this commune has done, it will be highly possible for Fujian to become rich quickly.

All the participating delegates and prefectural and municipal party committee secretaries felt encouraged by Comrade Liao Zhigao's introduction. They all expressed the determination to put the numerous mountains to good use and, in light of local conditions, to open them up and fully use them.

CSO: 4007

FUJIAN

BRIEFS

PLA ANTIDROUGHT CIRCULAR--The leading organ of the Fuzhou PLA units issued a circular which demanded that all the commanders and fighters actively support the localities to resist drought and reap a bumper agricultural harvest and make contributions to the four modernizations. The circular revealed that the busy season of crash reaping and sowing is drawing near. It pointed out that the recent hot weather is hazardous to the crops. It is therefore necessary to make arrangements on manpower, material and time to support the communes and brigades. In places where conditions permit, it is necessary to organize medical personnel and technicians to go deep into the countryside to help the commune members prevent and cure diseases and repair agricultural machinery and tools. According to weather forecasts, in July some areas will continue to experience drought. The PLA units stationed in these areas must try in every way to support the communes and brigades in the localities to overcome drought and transplant late rice well. It is also necessary to give full play to the role of the militia as the shock troops in production. [HK021150 Fuzhou Fujian Provincial Service in Mandarin 1035 GMT 30 Jun 80]

CSO: 4007

BRIEFS

ACADEMIC FORUM--After a 7-day session, the Gansu provincial agriculture modernization academic forum concluded 4 July. Some 110 theses were submitted at the forum. Attending the forum were experts, professors, scientific workers and representatives from various fields, including agriculture, forestry, animal husbandry, water conservancy and so forth--169 people in all. Present at the forum were leaders of the Gansu provincial CCP Committee, the provincial people's government and the Standing Committee of the provincial people's congress. Yang Xiandong, vice minister of the Agricultural Ministry, made a special trip to Lanzhou to attend the forum. [SK091204 Lanzhou Gansu Provincial Service in Mandarin 1125 GMT 8 Jul 80]

FORESTRY WORK--Tewo County is rich in timber resources and its area under forestation has reached about 56 percent of its total area, producing one-fourth of the province's total amount of timber. In order to fully develop these resources, the Gansu provincial CCP Committee and the provincial people's government recently formed a work group headed by Ge Shiying, Standing Committee member of the provincial CCP Committee and provincial deputy governor, to help develop forestry in this county. This work group will also help develop commune- and brigade-run enterprises whose main work will be to process forest products. [Lanzhou Gansu Provincial Service in Mandarin 1125 GMT 4 Jul 80]

CSO: 4007

HEBEI

HU YAOBANG INSTRUCTION ON CHESTNUT PRODUCTION

HK090316 Shijiazhuang Hebei Provincial Service in Mandarin 0430 GMT
29 Jun 80

[Excerpts] The CCP and revolutionary committees of Qianxi County have seriously implemented the important instruction of Comrade Hu Yaobang on the development of chestnut production bases. They are resolved to build up chestnut production bases as quickly as possible. Between 27 September and 16 November 1979, Comrade Hu Yaobang made two important instructions on several problems concerning chestnut production bases in Qianxi County which were in need of prompt solution. He pointed out that we should change the past practice in various departments of issuing too many general calls, interfering too much, and doing too much investigation and statistical work, and should instead grasp policies, studies of special topics and implementation of effective measures. He called on counties in the north China mountainous areas to devote great energy to developing chestnut production.

In the past, Qianxi County did not carry out the policies on chestnut procurement price and marketing, and on grain subsidy and grain rations in areas concentrating on chestnut production, thus some communes and brigades were unwilling to develop chestnut production. The CCP committee has now decided to designate 205 brigades as concentrated chestnut production areas; the other brigades should also develop chestnut production while developing grain production. At the same time, the CCP committee stated clearly that places where trees had been cut down and orchards destroyed for crop cultivation should give up cultivation of grain for forests and orchards.

The county CCP and revolutionary committees have persisted in carrying out policies and making studies on special topics, and implemented practical and effective measures to speed up the construction of chestnut production bases. At present there are 5 million chestnut trees in the county. More than 3.7 million of them are young trees.

CSO: 4007

HEILONGJIANG

BRIEFS

FLOOD PREVENTION--Heavy rainfalls since May have caused the water level to rise on some 20 rivers in Hulin County, Heilongjiang Province. As a result a total of 113,500 mu of crops, 17 percent of the county's total acreage of crops, suffered from waterlogging. The county is now taking prompt measures to drain off water to protect the farmlands. [Harbin Heilongjiang Provincial Service in Mandarin 1100 GMT 5 Jul 80]

FARM PESTS--Harbin, 9 Jul--Due to excessive rain, high humidity and high temperatures since the beginning of June, 27 counties in Heilongjiang have been affected by snout larvae and other pests. Nine million mu of farmland have been afflicted by the larvae. Recently the Heilongjiang provincial CCP Committee and provincial government instructed party and government organs in all localities to strengthen leadership over the work to prevent and eliminate the pests. [Beijing XINHUA Domestic Service in Chinese 0253 GMT 9 Jul 80]

GRAIN PROCUREMENT--Grain departments throughout Heilongjiang Province are now busy making preparations for the procurement of newly harvested wheat. The wheat sown by the state farms and communes across the province this year is coming up well, and a bumper harvest is in sight. In view of this, grain departments decided to build an additional 7,000 grain shops, each with a capacity to store up 700,000 tons of wheat. The grain departments also appropriated over one million yuan for grain depots in the vicinity of state farms to buy conveyers. [Harbin Heilongjiang Provincial Service in Mandarin 1100 GMT 6 Jul 80]

FORESTRY PRODUCTION--A meeting of leading cadres of forestry enterprises in Heilongjiang Province, which ended on 9 July, called for more efforts toward reforestation and multipurpose use of timber. A target of reforestation of 9 million mu of land was set for the coming 5 years. [Harbin Heilongjiang Provincial Service in Mandarin 1100 GMT 9 Jul 80]

LOCUST EXTERMINATION--Disasters caused by locusts have plagued the 300,000 mu of grasslands in the western part of the province. The Heilongjiang provincial people's government has shown great concern with the locust situation and has convened an emergency meeting to work out measures to

control locusts. They promptly mustered airplanes and communications apparatuses to exterminate the locusts before they oviposit or move to another place. [Harbin Heilongjiang Provincial Service in Mandarin 1100 GMT 5 Jul 80]

CATTLE BREEDING CIRCULAR--The Heilongjiang provincial people's government recently issued a circular urging all localities to do a good job in breeding fine strains of cattle. Because of low April temperatures and later than usual forage grass growth, the breeding period of cows has been delayed by half a month. The circular calls on all localities to organize work groups to conduct a general survey on breeding stations and selection of bulls. The circular stressed that the contract system and the system of fixed individual responsibility should be put into effect in the breeding work. [Harbin Heilongjiang Provincial Service in Mandarin 1100 GMT 2 Jul 80]

RESERVOIR PROJECT--Heilongjiang Province initiated construction on the (Taoshan) reservoir 1 July. This is the largest water conservancy project in the province. The state has invested 117 million yuan. The reservoir is located on the Woken River near (Taoshan) Mountain, east of Qitaihe Municipality. The reservoir's capacity is 162 million cubic meters. Upon completion, it will serve the Sanjiang plain, irrigate 827,000 mu of farmland, generate 8.6 million KWH annually, protect more than 100,000 mu of farmland in Boli, Huanan and Yilan counties from floods and waterlogging and develop fishery production. [Harbin Heilongjiang Provincial Service in Mandarin 1100 GMT 1 Jul 80]

WHEAT HARVEST--Harbin, 10 Jul--Heilongjiang is expected to reap a bumper wheat harvest this year from 30.02 million mu. This year's wheat acreage is 2.13 million mu larger than 1979. By the end of June, 787 large combine harvesters had been delivered by factories to Heilongjiang bringing the province's total to 11,300 sets. Harvesting will begin as soon as the wheat is ripe. [OW101709 Beijing XINHUA Domestic Service in Chinese 0200 GMT 10 Jul 80]

FLOOD DAMAGE--A flood occurred in Wuchang County, Heilongjiang Province, as a result of persistent torrential rains in mid-June. Some 238,000 mu of fields in 24 communes were under water. Dikes, highways, bridges and culverts were damaged in varying degrees. The county sent a large number of cadres to the afflicted areas to lead the rescue work. Water on 158,000 mu of land has been drained, and 26,000 mu of sorghum and corn have been replanted. Rice seedlings have been replanted on 12,000 mu of paddyfields. [SK052330 Harbin Heilongjiang Provincial Service in Mandarin 1100 GMT 30 Jul 80]

INSECT PESTS--As of 1 July, more than 10 million mu of farmland had been damaged by grass borers in Nenjiang, Siuhua, Songhuajiang and Heihe prefectures, Heilongjiang Province. Persons in 32 counties in the province are making great efforts to wipe out this insect pest through manpower,

machines and insecticides. Those localities which have not been hit by grass borers also are adopting preventive measures. [Harbin Heilongjiang Provincial Service in Mandarin 1100 GMT 4 Jul 80]

RAIN AND HAIL STORM--At 1700 on 8 July some areas of Harbin Municipality, Heilongjiang Province, were hit by a rain storm and hail for about an hour. Precipitation reached 65 millimeters in an hour. Some houses and vegetable fields were damaged. The Harbin municipal government has worked out emergency measures to relieve the damage. No injuries or house collapses were reported. [Harbin Heilongjiang Provincial Service in Mandarin 2200 GMT 8 Jul 80]

HIGH TEMPERATURES--Temperatures in Qiqihar Municipality, Heilongjiang Province, were very high last week. On 26 June, temperatures reached 40.1 degrees centigrade, the highest in the past 70 years. The previous high temperature was 39.9 degrees centigrade. [SK062130 Harbin Heilongjiang Provincial Service in Mandarin 2200 GMT 1 Jul 80]

DAIRY INDUSTRY--Harbin, 6 Jul--Heilongjiang, which accounts for one-fourth of China's total output of dairy products, registered a 26.3 percent increase in the output of milk products in the first 6 months of this year over the same period of 1979. The planned target for this year is 11,500 tons, or 8 percent over the actual yield of last year, according to the Heilongjiang Light Industry Bureau. Last year's output topped the previous year by 23 percent. Heilongjiang Province, which has about 3.3 million hectares of grassland, has encouraged communes, brigades as well as individual commune members to breed milch cows and goats and supplied them with more fodder than before. The state purchasing price for fresh milk has increased by one-fourth. In order to handle the increasing amount of fresh milk, creameries in the province are being expanded and technically transformed. When the projects are completed, their annual capacity will increase by 30,000 tons. The Heilongjiang dairy product research institute is working on instant full-cream milk powder, and powder for babies with added vitamins A and D and legume protein and as nutritious as maternal milk. An easy-to-digest milk powder for aged people, in which vegetable oil is used to replace animal fat, is being produced experimentally. [Beijing XINHUA in English 0154 GMT 6 Jul 80]

CSO: 2040

MEASURES FOR INCREASING AUTUMN HARVEST ADOPTED

Beijing RENMIN RIBAO in Chinese 24 Jun 80 p 1

[Article by Wang Biao [3769 1753]: "Henan Proposes Five Measures To Increase Autumn Grain Output; Changes the Situation of Paying Much Attention to the Summer Harvest and Little Attention to the Autumn Harvest and Adheres to Adjustment of Methods To Suit Local Situations"]

[Text] Not long ago the Henan Provincial CCP Committee convened a symposium of agricultural technicians and labor models to review and analyze the history and the current situation of grain production in Henan Province, to summarize the lessons of experience, and to propose five measures to increase autumn grain output.

For the past 10 years, the incremental rate of increase in total summer grain output in Henan Province has been 7.3 percent, while the incremental rate of increase in total output of autumn grain has been less than 1 percent. Autumn grain production has increased slowly, not only impairing total increased output of grain, but also causing a shortage in fodder, feed, and raw materials for sideline enterprises, and making for difficulties in the development of light industry and in adjusting the livelihoods of people in cities and villages. The principle reasons for this state of affairs has been, first of all, a leadership mentality of paying much attention to the summer harvest and little attention to the autumn harvest as a result of which crucial measures for increased autumn harvests were given only casual attention. Second was contravention of the principle of adjusting methods of local situations. Instead a lopsided emphasis was given to the expansion of certain crops with the result that the area planted to millet, soybeans, and gaoliang declined. This, plus the partial drought in corn growing areas and calamities in lowlying areas where sweet potates are grown have reduced output during the past 2 years. Third is the short crop growing season in autumn, numerous disasters, and a shortage of fertilizer.

In order to promote increased autumn grain output, the entire province has given strict attention to five key measures:

1. Farming in accordance with local conditions, changing crop patterns, and expanding the cultivation of crops able to stand drought and waterlogging. In the irrigated area of Nanyang and Zhumadian on both banks of the Yellow River, an increase in planting of late crop rice to 3.3 million mu. In the

Huangfan area and in central Henan, reinstatement and development of soybean growing on 13.50 mu. Curtailment of corn growing in the hilly prefectures of northwestern Henan with a return to the growing of millet on 5.5 million mu.

2. Advocacy of early planting of a late autumn crop throughout the province. On the basis of historical experience, around the time of the summer solstice if planting is delayed by just 5 days, 10 percent reductions in yields are common. In order to be sure of early planting of the late autumn crop, the entire province adopted three methods: planting in the ridges between wheat fields using the dibbling method; prompt planting in the wheat stubble, promotion of sowing in gullies, and planting while harvesting is going on; and growing of seedlings from transplating.

3. Increased applications of fertilizer. A shortage of fertilizer in late autumn is a common phenomenon, and it is also the main reason for low production. Earlier, all echelons of the party organization and government in Henan Province gave strict attention in small chemical fertilizer production, and now more than 300,000 tons of chemical fertilizer are in readiness throughout the province for late autumn crops. Additionally, a campaign was launched throughout the province to clean out pig pens, clean out toilets, clean chicken roosts, and clean the bottoms of manuer pits, so this year the crude fertilizer made ready for the late autumn crops is greater in quantity and better in quality.

4. Intensify scientific tending of the autumn fields. Recently all echelons of the party organization in Henan Province have given attention to scientific farming, have vigorously promoted and popularized superior hybrid varieties, have advocated deep hoeing, and careful hoeing. Twenty-three million mu of crops to be harvested in autumn have been deep-hoed. Every prefecture, county, and commune has intensified its insect monitoring and reporting work.

5. Be ready to combat calamities and reap a bumper harvest. For many years Henan has frequently been best first by drought and then by flooding in an alternation of droughts and floods. In view of the abnormalities of this year's weather, all echelons of leadership have made full preparations for "defense against calamities in advance, combatting of calamities when they come, and recovery after calamities have passed."

9432

CSO: 4007

SOUTHERN PART OF PROVINCE HIT BY TORRENTIAL RAINS

OW100328 Beijing XINHUA Domestic Service in Chinese 1252 GMT 9 Jul 80

[Text] Zhengzhou, 9 Jul--Torrential rains have created disaster in the southern part of Henan Province, and the provincial party committee and the provincial people's government are leading the people to wage an all-out struggle against the disaster in efforts to minimize the losses. Continuous rainfall has been reported in southern Henan since June this year. When the soil moisture content reached the saturation point and the water level of all rivers had risen, southern Henan was again hit by torrential rains 23 to 24 June, and the rainfall ranged from 100 millimeters to as much as 300 millimeters in some localities, thus causing flood and waterlogging disasters in the areas of the Huaihe, Honghe and Ruhe rivers and some places of the Fengquanhe River.

According to preliminary statistics, some 8 million mu of crops were damaged, of which 3 million mu of autumn crops must be rush-planted. Many rural villages were surrounded by flood waters, some 70,000 houses collapsed, 156 persons were injured and 22 persons died.

Weather forecasts were made by the related departments of Henan Province before the flood occurred. After the occurrence of the flood, Liu Jie, secretary of the Henan Provincial CCP Committee and governor of Henan, and other responsible comrades personally went to the flood-stricken areas to direct the struggle against the flood. The provincial government has allocated certain amounts of relief funds to help the masses of flood-stricken areas solve some of their urgent problems. Meanwhile, led by the responsible comrades of the provincial civil affairs bureau and water conservancy bureau, special relief groups have been organized by personnel from the related departments under the provincial grains supply and health bureaus to comfort the flood victims and cooperate with the flood-stricken areas to carry out the relief work. The broad masses of cadres, people and PLA fighters in the flood-stricken areas have also participated in the struggle to combat the flood and rescue the flood victims.

The office of the central flood prevention headquarters and the Ministry of Civil Affairs has also sent work groups to comfort the masses in flood-stricken areas and try to find out about the disasters.

The flood waters have now vanished in most of the flood-stricken areas, and accumulated water has been drained from most of the inundated farmland. Wheat threshing and rush sowing of late autumn crops are being carried out in southern Henan. Meanwhile, efforts are also being made to resettle the masses of flood victims.

CSO: 4007

URGENT MEETING ON SUMMER GRAIN WORK HELD

HK060246 Zhengzhou Henan Provincial Service in Mandarin 1130 GMT 5 Jul 80

[Excerpts] According to HENAN RIBAO, the Henan Provincial People's Government held an urgent telephone conference on the evening of 3 July, which demanded that the province take advantage of fine days, overcome bad weather, hurry to thresh the wheat and speed up the work of procuring and storing summer grain. Provincial CCP committee secretary and vice governor LI Qingwei presided and spoke at the meeting.

The meeting pointed out: The province has reaped a relatively good summer harvest, thanks to the hard work of the people in overcoming various natural disasters. By the end of June, 70 percent of the harvest had been threshed. However, very great difficulties have been caused to threshing, procuring and storing the summer grain because of the low temperatures in spring, which delayed the wheat harvest, plus the continuous overcast, wet weather since the harvest. By the end of June, the province had only fulfilled about 10 percent of the task of storing summer grain. This is an important problem that urgently needs solving. Unless we rapidly take effective action to solve this problem, all our economic work will be thrown into a passive state.

The provincial people's government called on the peasant masses to further mobilize with urgency to take advantage of fine days, overcome the bad weather and launch shock attacks to thresh the wheat. According to the weather forecast, most parts of the province will have more rain than usual in July. The flood season has already arrived ahead of schedule. Hence it is essential to get on with threshing the wheat right away.

The provincial CCP committee has expressed the hope that the province can complete wheat threshing in 3 to 5 days and that summer grain procurement can be completed by 20 July. The summer grain markets will be closed during the procurement period. Sales at negotiated prices can start after the procurement and surplus procurement quotas are fulfilled.

The telephone conference also emphasized antiflood work.

BRIEFS

COTTON MANAGEMENT--Zhengzhou, 2 Jul--Henan Province is strengthening intermediate-period cotton field management. The 9 million mu of cotton planted by Henan Province this year is growing more healthily than in previous years. As of mid-June, 49 percent of the cotton in the province had budded. The Henan provincial people's government has held an on-the-spot cotton field management meeting in Nanyang County, attended by representatives of the province's 37 major cotton-producing counties. The meeting summarized and exchanged experiences in intermediate-period cotton field management and mapped out effective measures to do this work well. To do a good job in cotton field management, all localities in the province are implementing the system of production responsibility. At present 2 million cotton field management and technical personnel are engaged in the work. [Beijing XINHUA Domestic Service in Chinese 0147 GMT 2 Jul 80]

CSO: 4007

HUNAN SUBSIDIZES PORK SALES

Beijing RENMIN RIBAO in Chinese 29 May 80 p 3

[Text] Hunan Province has decided that between April and August temporary steps will be taken to expand pork sales, to intensify hog procurement and to support pig raising.

On the basis of State Council directives and the conditions in the various localities, the Hunan provincial commercial departments have proposed increased sales quotas. The increased losses resulting from increased sales will be subsidized by the provincial financial system. The discount rate for meat used in the foodstuffs industry is increased from 10 percent to 13 percent. At the same time it has been decided to drop the price of skinned frozen pork in storage to 80 percent of retail price.

In order to encourage local sales, the various counties' allocation assignments have again been revised. The province must pay a compensation of 10 yuan a head for a decrease in the number allotted within the province. During the busy farming season each production team will be supplied 1 or 2 pigs at reduced prices. Meat which cannot be sold off within a day during hot weather may be disposed of at decreased prices, within a certain range, by the basic-level accounting units.

The Hunan provincial party committee and the People's Government also request that the relevant departments extensively propagandize the importance of expanding pig production, publicize the fact that the economic policies with regard to live pigs have not changed, and stimulate commune members to expand pig raising. The relevant departments are also requested to take effective measures to protect their sows, and if private individuals raising sows are in difficulty, the sows may be acquired by the production team as public-owned, privately-raised pigs; the slaughtering departments are requested when slaughtering and skinning pigs to use the fat meat for making lard.

8480

CSO: 4007

BRIEFS

COTTON MEETING--The Jiangsu provincial people's government held a provincial on-the-spot meeting on cotton production in late June, calling on the cadres and commune members in the cotton producing areas of the province to further promote the techniques in cotton production and step up the cotton field management. The participants visited 13 production units in Rudong and Dongtai counties. Comrade Zhou Ze [vice governor] was present and spoke [no details]. [Nanjing Jiangsu Provincial Service in Mandarin 2300 GMT 2 Jul 80]

PRECAUTIONS AGAINST FLOOD--The Jiangsu provincial economic commission recently issued an "emergency circular" calling on all departments concerned to take effective measures against possible flood in order to insure a good harvest. The circular called for the timely supply of chemical fertilizer, pesticides and other materials necessary for agricultural production. Materials should be prepared and people should be organized for flood control. [Nanjing Jiangsu Provincial Service in Mandarin 1100 GMT 1 Jul 80]

TORRENTIAL RAIN--Torrential rain fell on the Qinhuaihe and Chuhe river basins from the night of 8 July to 9 July. The provincial headquarters for flood and waterlogging prevention has urged the cadres and people in the basins to take immediate action to combat possible flooding and waterlogging. The heaviest rainfall was at Nanjing and Yisheng. As of 0600 GMT on 9 July, the precipitation of Nanjing, Jiangning, Luhe, Yisheng and four other counties and municipalities exceeded 100 millimeters. Nanjing and Yisheng had 140 and 220 Millimeters of rain respectively. The water level of the Chuhe River rose 2 meters within 12 hours. It has been urged that all possible steps be taken to insure not only agricultural production but also the safety of land and air transportation of Nanjing Municipality and other areas. According to the weather forecast, more rain will fall between 10 and 11 July. [OW101709 Nanjing Jiangsu Provincial Service in Mandarin 1100 GMT 9 Jul 80]

ZHENJIANG PREFECTURE AGRICULTURE--Zhenjiang Prefecture in Jiangsu Province reaped a good harvest of summer crops this year. Total summer grain output was more than 1.7 billion jin, setting a record. [Nanjing Jiangsu Provincial Service in Mandarin 2300 GMT 1 Jul 80]

XINGHUA COUNTY AGRICULTURE--Xinghua County in Jiangsu Province reaped more than 650 million jin of wheat, barley and naked barley this year, increasing 10 percent compared with last year. [Nanjing Jiangsu Provincial Service in Mandarin 2300 GMT 1 Jul 80]

CSO: 4007

OFFICIAL SPEAKS ON RURAL ENTERPRISES AND FUTURE ROLE OF COMMUNES

HK100628 Nanchang Jiangxi Provincial Service in Mandarin 1100 GMT
8 Jul 80

[Excerpts] The Jiangxi Provincial People's Government recently held a conference on commune and brigade enterprises, which exchanged experiences and arranged the tasks for this year. A trade fair of products of commune and brigade enterprises was recently held in Nanchang Municipality. A Jiangxi Radio reporter has interviewed Comrade (Zhong Bangpu), deputy director of the provincial commune and brigade enterprise bureau, on issues such as the state of development of the province's commune and brigade enterprises, and how to further implement the State Council regulations on developing commune and brigade enterprises, and insure a great development of these enterprises in Jiangxi.

Deputy Director (Zhong Bangpu) said: A leading central comrade recently pointed out: Rural labor forces made surplus by agricultural modernization must certainly not move into the big towns; they can only develop local industry, commerce and culture and build up small townships. In future, a commune will be a small township and follow the path of combining agriculture, industry and commerce. The commune will both till the land and also organize industrial enterprises. By developing commune and brigade enterprises, full use can be made of local resources, and capital can be accumulated relatively rapidly for supporting the speedy development of agriculture.

Jiangxi has rich natural resources and there are great prospects for developing commune and brigade enterprises. By the end of last year, the province had 40,000 commune and brigade enterprises with a total workforce of 800,000. The total income of the enterprises was 1.21 billion yuan, 24.3 percent of the total income of the three-level economy of the communes. In the first half of this year, the province's commune and brigade enterprises seriously implemented the eight-character principle on readjusting the national economy, with the result that in the machine-processing industry, which had surplus production capacity, those enterprises that were not up to the mark in technology, lacked sources of raw materials, were unable to market their products and ran at a loss for a long time

have not brought into play their strong points and avoided the weak ones, promptly corrected their production orientation, and gained new development in the course of readjustment. Total output value of commune-run industry from January to May this year was 201,490,000 yuan, 34.15 percent of the year's plan and 7.8 percent higher than the same period last year. It is also estimated that the total value of output of brigade-run enterprises reached about 400 million yuan. According to our initial analysis, calculating by the fact that value of output of commune and brigade industry accounted for two-thirds of the total output value of commune and brigade enterprises last year, the total value of commune and brigade industry this year should reach 1.1 billion yuan; the output value completed from January to May accounted for 40 percent of the year's plan. In particular, in the course of readjustment, all places have paid attention to bringing into play local superior features and developed a number of backbone enterprises in a planned and systematic way. Generally speaking, the situation of development of the province's commune and brigade enterprises is very good, and this must be affirmed.

However, we must clearly realize that there are also many problems in our work. Some comrades lack sufficient understanding of the importance of developing commune and brigade enterprises and have failed to get a sufficient grasp of fully bringing into play local superior features, grasping the key points and promoting backbone enterprises. They have done still less in grasping joint enterprises. In particular, our minds have not been emancipated enough, and we have not grasped production well or carried out business in a lively way. We have not done enough liaison work with various departments, and the production-supply-marketing channels are not clear enough. As a result we failed to fulfill the plan for the first half of the year. We must make further efforts to seriously solve these problems.

Speaking on the prospects of developing commune and brigade enterprises, deputy director (Zhong Bangpu) stressed: We must continue to implement the State Council's regulations on a number of problems in developing commune and brigade enterprises and the minutes of the conference of prefectural, municipal and mountain area commune and brigade enterprise bureau directors, circulated by the provincial people's government. We must continue to implement the eight-character principle on readjusting the national economy, and do a good job of readjusting and rectifying the commune and brigade enterprises.

Launching sustained movement to increase production and practice economy is the central task of the commune and brigade enterprises this year. The total income of the province's commune and brigade enterprises this year is planned to be 1.5 billion yuan, a 24-percent increase over last year. This is an arduous task. Since the situation of fulfilling the plan was not good enough in the previous 5 months, we must strive to make up the deficit in the third quarter. It is necessary to bring local

superior features into play and develop a large number of backbone enterprises in a planned and systematic way. Within 2 or 3 years, every commune should newly develop at least one or two enterprises each with a total annual output value of over 300,000 yuan, while every brigade should newly develop one or two enterprises each with an annual output value of over 50,000 yuan. Hence, it is necessary to make all-round plans and rational arrangements.

We must open up various sources of capital for developing these enterprises. We must mainly rely on self-reliance and on the strength of joint efforts. In running enterprises, we can get production teams and brigades to become shareholders, issue them shares, and pay them dividends. In this way, not only can we solve the shortage of capital; more important, the success or failure of the enterprises will be linked to the interests of the production teams [of] the peasants. Hence, we must vigorously advocate joint operation of enterprises by the three levels of the commune, by a number of communes, by county and commune, and by factory and commune. We can also carry out compensation trade with other provinces and areas, together with processing of materials supplied by external customers and so on.

CSO: 4007

JIANGXI

BRIEFS

GRAIN EXPORTS--The people in Jiangxi have promoted agricultural production with grain exports. Well reputed as a small grain warehouse south of the Yangzi River, grain production in Jiangxi in the past 2 years has been speeded up. The average amount of grain for each person in the farming population in the province is comparatively high for the country. In April this year, the province exported 10,000 jin of rice in exchange for 45,000 tons of urea. The provincial foreign trade departments have signed contracts with the import and export companies concerned in the country. The provincial grain office is responsible for processing rice, while the provincial supply and marketing cooperative is responsible for importing chemical fertilizer. At present, 50 million jin of rice have been exported and the first batch of 20,000 tons of urea have been imported. The provincial people's government has demanded that the foreign trade departments and the companies concerned import 34,900 tons of urea. [HKO41150 Nanchang Jiangxi Provincial Service in Mandarin 1100 GMT 2 Jul 80]

REED CULTIVATION--On 29 June, Bai Dongcai, Fu Yutian, Xu Qin and (Liang Kaitian), leading comrades of the Jiangxi provincial CCP Committee and the provincial people's government, went to Boyang Lake by boat to inspect the reed cultivation base. The reeds are used for making high quality paper. Reed cultivation in the province began in 1975. There are now 40,000 mu of reeds in Jiangxi. Summer is the best season for growing reeds. Bai Dongcai urged the reed-growing staff and workers to grow more reeds. In the past few years, these areas have earned a total of 300,000 yuan. [Nanchang Jiangxi Provincial Service in Mandarin 1100 GMT 4 Jul 80]

CSO: 4007

JILIN

BRIEFS

HAILSTORM DAMAGE--On 5 July a hailstorm hit some 200 vegetable-growing production teams in 27 production brigades of 6 communes on the outskirts of Changchun Municipality, Jilin Province. Because of the hailstorm, it is estimated that the vegetable supply for the market during the summer season will be reduced by some 50 million jin. In the wake of this disaster, Ren Qingyuan, first secretary of the municipal CCP Committee, together with other municipal leaders, inspected the affected areas and extended sympathy to the cadres and masses there. An emergency relief meeting was held by the municipal CCP Committee and the municipal government. Funds, vegetable seeds and chemical fertilizers were allocated to the affected teams to help them resume production. [SK110108 Changchun Jilin Provincial Service in Mandarin 2200 GMT 9 Jul 80]

JUNE RAIN STORM--On 20 and 23 June of 1980, a serious rain and hail storm hit Lishu County in Jilin Province. Acreage affected totaled 633,250 mu, 24 percent of the total cultivated farmland in the county. Relief goods are being rushed to the area. The people in the area are told that the rain alleviated the drought after topdressing and that this year's crop production will be better than that of last year in spite of natural disasters. [SK060428 Changchun Jilin Provincial Service in Mandarin 1100 GMT 28 Jun 80]

NATURAL DISASTERS--Shuangyang, Jiahe, Huade, Hailong and Yongji counties in Jilin Province, recently hit by hail and rain and suffering the effects of waterlogging, are making great efforts to minimize damages caused by such natural disasters. As of 23 June, Shuangyang County straightened seedlings on some 40,000 mu fields, replanted 6,750 mu of crops and eliminated waterlogging on 2,150 mu of cultivated farmland. [SK070425 Changchun Jilin Provincial Service in Mandarin 2200 GMT 1 Jul 80]

CSO: 4007

BRIEFS

MINOR SPRING SOWING--Minor spring sowing has been completed in Liaoning Province. More than 1.36 mu of land have been sown with minor oil-bearing crops, cash crops and miscellaneous food grains, showing an increase of 70 percent over the corresponding 1979 period. [Shenyang Liaoning Provincial Service in Mandarin 1100 GMT 6 Jul 80]

COTTON CROP--This year Liaoning Province has planted 578,000 mu of cotton. Due to good field management, the cotton crop is growing very well. [Shenyang Liaoning Provincial Service in Mandarin 1100 GMT 9 Jul 80]

PINE MOTH--Forestry departments in Liaoning Province are taking resolute measures to eliminate pine moths which have caused serious damage to 50 percent of the pine trees in the province. The forestry departments are trying to control the growth of pine moths within the next 2 or 3 years. [Shenyang Liaoning Provincial Service in Mandarin 1100 GMT 28 Jun 80]

AGRICULTURAL DEVELOPMENT PLAN--The Liaoning provincial academy of agriculture and the provincial agricultural society held a meeting 28-29 June for 42 agricultural experts and leading comrades of administrative departments concerned to discuss the draft plan for Liaoning agricultural development. The draft plan was prepared by the noted agricultural scientist and director of the provincial academy of agriculture, (Cao Yukun). Participants held that the draft plan is a blueprint for agricultural modernization in Liaoning Province. [Shenyang Liaoning Provincial Service in Mandarin 1100 GMT 1 Jul 80]

SHENYANG FOOD BASES--Large bases for producing vegetables, oil-bearing crops, cattle, sheep, poultry, pigs, fresh-water fish and other non-staple food items are being built in two counties and four suburban areas under the jurisdiction of Shenyang Municipality, Liaoning. Fifty collective pig farms under construction are expected to sell some 40,000 head of pigs by the end of 1980, whereas the 10 mechanized and semi-mechanized chicken farms are expected to produce 800,000 jin of eggs this year. Built by local communes with 1.95 million yuan of funds provided by the state, the 10 fresh-water fish farms will provide the people of Shenyang with 400,000 jin of fish this year. There are 6,400 head of milk cows in Shenyang City, capable of producing 87,000 jin of milk daily. [Beijing XINHUA Domestic Service in Chinese 0135 GMT 29 Jun 80]

PORK SALES PROMOTED--In order to preserve the activism of the peasantry with regard to hog raising, the relevant departments in Liaoning Province recently issued a notice that grading and prices may not be lowered on account of the large supply of pigs, that procurement may not be limited or stopped, that procurement prices may not be changed at will, and that the award policy has not been altered. At the same time, the Liaoning provincial commercial departments have actively been improving their supply techniques and energetically promoting the sale of pork. The rural foodstuffs purchase and sales stations are promoting local procurement, local slaughtering and local sales. The urban groceries have set up increased numbers of stalls and are suitably increasing their hours of operation. [Text] [Beijing RENMIN RIBAO in Chinese 29 May 80 p 3] 8480

CSO: 4007

NEI MONGGOL

BRIEFS

LIVESTOCK HARVESTS--Hohhot, 29 Jun--Xilin Gol League in Nei Monggol Autonomous Region is expecting a bumper harvest of animal husbandry this year. As of the end of May, the league had raised 1.68 million head of baby livestock, an increase of 385,000 head over last year's same period. [Beijing XINHUA Domestic Service in Chinese 1138 GMT 29 Jun 80]

CSO: 4007

QINGHAI

BRIEFS

NATIONALITY CONFERENCE--In accordance with the spirit of the party Central Committee's directive on the work in Xizang, the Hainan Tibetan Autonomous prefectoral party committee recently held a work conference on nationalities to discuss economic construction in light of local conditions. The conference held that it is improper to impose general policies on minority areas. Only the Huanghe River valley and a few terraces can grow grain and oil-bearing crops. The conference urged efforts to ease policies on minority areas, to give greater minority regional autonomy, to encourage commune members to breed livestock and to develop cattle raising. [SK090705 Xining Qinghai Provincial Service in Mandarin 2330 GMT 4 Jul 80]

ANIMAL HUSBANDRY--Qinghai Province's animal husbandry developed relatively well in the first 6 months of 1980. As of early June there were about 4.05 million head of newborn animals in the province and about 3.15 million head survived. Deaths among mature animals decreased by some 63,000 head. Therefore, the total number of surviving animals in the province increased by 378,000 head over the corresponding 1979 period. [Xining Qinghai Provincial Service in Mandarin 2330 GMT 7 Jul 80] Xining, 9 Jul--Qinghai has scored fine achievements in animal husbandry. As of early June, the province had bred a total of 3.146 million head of young animals, exceeding the figure registered for last year's corresponding period by 310,000 head. [Beijing XINHUA Domestic Service in Chinese 0230 GMT 9 Jul 80]

CSO: 4007

GOVERNOR CALLS FOR STRENGTHENING FIELD MANAGEMENT

OW081436 Beijing XINHUA Domestic Service in Chinese 1239 GMT 8 Jul 80

[Text] Xian, 8 Jul--At a telephone meeting on preventing floods and strengthening autumnal field management sponsored recently by the Shaanxi Provincial CCP Committee and the provincial people's government, Yu Mingtao, secretary of the provincial party committee and governor of the province, pointed out: in addition to the various systems of job responsibility in production already adopted and the system of being responsible for a task until it is completed, the system of fixing of farm output quotas for each household and other methods adopted in some areas, we must also concentrate our efforts on grasping autumn field management well. At present, the system of fixing of farm output quotas for each work group, the system of integrating production with labor and the system of job responsibility in giving awards to those who overfulfill production tasks being carried out in many places are good methods to develop the masses' enthusiasm. Communes and brigades that have not carried out these systems yet and are willing to carry them out must implement them as soon as possible. Farm output quotas must be fixed in a fair and reasonable way and a considerable margin should be left. Major awards must be given to work groups and individual workers who overfulfill production quotas so that their enthusiasm for overfulfilling production tasks can be fully developed. All awards systems must be carried out to show that we mean what we say, so that the people will have faith in us.

After a long 200-day drought, many localities in Shaanxi were recently hit by rainstorms and hail. Our agricultural production suffered serious losses. In addition to mobilizing the people to do a good job of flood prevention, the Shaanxi Provincial CCP Committee and the provincial people's government called for efforts to help the people in disaster-afflicted areas with their living needs, stabilize the masses' mood for production, launch an emulation drive for a bumper autumnal harvest and strengthen autumn field management to seize a bumper harvest of autumn grain and cotton.

CSO: 4007

SHAANXI

BRIEFS

LATE AUTUMN CROPS--After summer harvesting, the people in Shaanxi are trying in every possible way to crash sow late autumn crops. During summer, they had sown 14 million mu of late autumn crops, fulfilling 74 percent of the sowing plans. Of these crops sown, 8 million mu are dry land crops. (Xian Shaanxi Provincial Service in Mandarin 1400 GMT 27 Jun 80)

CSO: 4007

SHANDONG

BRIEFS

SUMMER HARVEST--Shandong Province has completed this year's summer harvest. The province harvested 55 million mu of wheat. [Jinan Shandong Provincial Service in Mandarin 2300 GMT 30 Jun 80]

HEAVY RAINS--Heavy rains hit Shandong Province 28-30 June. In 19 counties and municipalities the rainfall exceeded 100 millimeters. In Jinan Municipality the precipitation was as high as 167.5 millimeters. Now that the rainy season has begun, provincial departments concerned have urged all localities to take necessary steps to prevent floods. [Jinan Shandong Provincial Service in Mandarin 2300 GMT 30 Jun 80]

CSO: 4007

SHANGHAI

BRIEFS

VEGETABLE SHORTAGE--The finance and trade office and commerce and grain bureaus of the Shanghai municipal people's government jointly held an "emergency meeting" with responsible persons of various district procurement offices and foodstuffs companies to solve a "temporary vegetable shortage." The measures the meeting decided to take included increasing procurement of vegetables from other areas, limiting the quantity of vegetable supplies for the retail market and increasing production of bean sprouts. [OW070441 Shanghai City Service in Mandarin 2300 GMT 1 Jul 80]

QINGPU COUNTY WHEAT HARVEST--Qingpu County, Shanghai, had another bumper harvest of wheat this year with total output topping the 1979 figure by 7.35 million jin, 1979 being a fat year itself. The county also registered a good per-mu rapeseed output of 204 jin. [Shanghai City Service in Mandarin 2300 GMT 4 Jul 80]

CSO: 4007

SICHUAN

BRIEFS

RAPSEED PRODUCTION--Total rapeseed production in Sichuan this year has reached 1.14 billion jin, nearly 10 percent higher than in the bumper year of 1979. By 25 June, the province had procured 639 million jin of rapeseed, overfulfilling the procurement quota. [Chengdu Sichuan Provincial Service in Mandarin 2300 GMT 1 Jul 80]

GUANGHAN COUNTY RAPSEED HARVEST--Chengdu, 27 Jun--Guanghan County, Sichuan Province, harvested an average of 345 jin of rapeseed per mu--an increase of 10 percent over last year--from 115,000 mu of rapeseed fields. Total yield reached 39 million jin, increasing 40 percent over last year. [Beijing XINHUA Domestic Service in Chinese 0346 GMT 27 Jun 80]

RURAL INTEGRATED ENTERPRISES--Chengdu, 7 Jul--A number of rural integrated enterprises run jointly by communes and brigades have been set up in Sichuan Province, southwest China. Most of them are engaged in processing one or more agricultural and side-line products such as silkworm cocoons, tea, animal by-products, grain, oil-bearing crops, cotton, fruit and sugar cane. So far, more than 30 silk mills run jointly by communes and brigades have been set up or expanded in the province. An integrated silk mill in Xichong County has put mulberry tree planting, silkworm cultivation, reeling and silk weaving under unified management. The animal by-product processing mill run by several communes in Youyang County includes a cattle farm, a cold storage and a processing plant. These integrated enterprises, financed mainly by the communes and brigades themselves, sell their products directly in the market or to the state and combine agriculture, industry and commerce, thus opening broad vistas for a thriving rural economy. [OW080429 Beijing XINHUA in English 0721 GMT 7 Jul 80]

CSO: 2040

XIZANG

BRIEFS

FIELD MANAGEMENT STRENGTHENED--Lhasa, 7 Jul--The Xizang regional people's government recently allocated, without demanding repayment, 2.4 million yuan to rural communes and brigades to help finance the purchase of pesticides and sprayers. As a result, aphids and wheat diseases spread by aphids have now been basically brought under control. Inspired by the party Central Committee directive on work in Xizang and the regional people's government proclamation on implementing flexible economic policies, the rural cadres and masses have stepped up field management and are determined to reap a bumper harvest this year. [Beijing XINHUA Domestic Service in Chinese 1302 GMT 9 Jul 80]

CSO: 4007

YUNNAN

BRIEFS

SUMMER GRAIN--By 25 June, the people in Yunnan had overfulfilled the plans of purchasing summer-harvested grain and rapeseed by 102.5 percent and 170.4 percent respectively. This year, the procurement tasks for summer-harvested grain and rapeseed were fulfilled 20 and 40 days respectively earlier than last year. During last winter and spring, various systems of production responsibility were established and put on a sound basis in the province. [Kunming Yunnan Provincial Service in Mandarin 1100 GMT 28 Jun 80]

CSO: 4007

ZHEJIANG

BRIEFS

HOG PRODUCTION--In the first half of this year, Zhejiang bought 6.45 million hogs and sold 4.3 million, record highs for purchases and sales. As of the end of May, the number of hogs in pens reached 14.95 million head. [Hangzhou Zhejiang Provincial Service in Mandarin 1100 GMT 8 Jul 80]

SPRING GRAINS--As of 30 June, 476.63 million jin of spring grains were delivered to the state from all parts of Zhejiang Province, thus overfulfilling the procurement plan for spring grains. By late June, the peasants had exchanged some 28 million jin of spring grains for rice. [Hangzhou Zhejiang Provincial Service in Mandarin 0400 GMT 4 Jul 80]

HOG PROCUREMENT--On 29 June, the Zhejiang provincial people's government held a telephone conference on hog procurement. The meeting called on major hog-breeding counties in the province to do a good job in buying hogs from the breeders and promoting hog-breeding and pork sales. According to a deputy director of the provincial finance and trade office who spoke at the meeting, Zhejiang Province has increased the purchase, sales and export of hogs in the first half of 1980 as compared with the first half of 1979. He urged all localities to promote pork sales in the countryside and prevent buying more hogs than can be sold. The provincial government encourages peasants to raise pigs. [Hangzhou Zhejiang Provincial Service in Mandarin 0400 GMT 30 Jun 80]

YIWU COUNTY RICE PRODUCTION--Zhejiang's Yiwu County has mobilized the masses to apply fertilizer and manures to crops with good results. As of the end of June, fertilizer had been applied to some 50,000 mu of early rice in the county, thus creating conditions for a bumper harvest. [Hangzhou Zhejiang Provincial Service in Mandarin 1100 GMT 6 Jul 80]

REFRIGERATING WAREHOUSES--A number of refrigerating warehouses will be built in Hangzhou, Jinhua, Jiaxing and Huzhou of Zhejiang Province. The total capacity is 500,000 head of slaughtered hogs. The project has been approved by the Ministry of Commerce. In addition, another refrigerating warehouse with a capacity of 5,000 dun is under construction in Ningbo Prefecture. [Hangzhou Zhejiang Provincial Service in Mandarin 1100 GMT 30 Jun 80]

Agricultural Sciences

AUTHOR: DONG Yuchen [5516 3768 3819]

ORG: Institute of Crop Germplasm Resources of the Chinese Academy of Agricultural Sciences

TITLE: "Rare Species in Triticum and Their Utilization in Breeding"

SOURCE: Beijing ZHONGGUO NONGYE KEXUE [SCIENTIA AGRICULTURA SINICA] in Chinese No 3, 1979 pp 1-7

TEXT OF ENGLISH ABSTRACT: The rare species in Triticum refer to all the species within this genus except the common wheat. This paper describes the distribution of these species and their main characters, and also briefs the achievements in using these rare species in wheat breeding at home and abroad.

AUTHOR: DING Shoukang [0002 1108 1660]

ORG: Institute of Crop Germplasm Resources of the Chinese Academy of Agricultural Sciences

TITLE: "Investigation on Ways of Selecting Wheat Varieties with a Yield Over 1,500 Jin per Mu"*

SOURCE: Beijing ZHONGGUO NONGYE KEXUE [SCIENTIA AGRICULTURA SINICA] in Chinese No 3, 1979 pp 8-16

TEXT OF ENGLISH ABSTRACT: Having analyzed the fact of the high-yielding wheat varieties of 1,500 jin per mu in China, we have come to the conclusion that in breeding of a new wheat variety with a yield potential over 1,500 jin per mu, it must be to increase the grain weight per ear of the varieties yielding 1,000 jin per mu. According to the analysis of the genetic material data, it showed that the increasing of 1,000 grain weight is an easier way to win a high yield of wheat than that of increasing the number of grains per ear, and it also seems to be more reliable. As a high-yielding variety of 1,500 jin per mu often possesses multiple good characters, the increasing of 1,000 grain weight of the good variety yielding over 1,000 jin per mu will also be accompanied by a good character. In order to realize the above target, much research must be done to

[Continuation of ZHONGGUO NONGYE KEXUE No 3, 1979 pp 8-16]

create the germplasm of the big grain variety.

* HUANG Peimin [7806 0160 3046] revised the draft.

AUTHOR: YANG Changshou [2799 2490 1108]
LIU Jiyi [0491 1015 0001]
XU Zunping [1776 0193 5493]

ORG: All of the Academy of Agricultural Science of Yunnan

TITLE: "Research on the Optimum Population Structure of High-Yielding Wheat
in Yunnan"

SOURCE: Beijing ZHONGGUO NONGYE KEXUE [SCIENTIA AGRICULTURA SINICA] in Chinese
No 3, 1979 pp 17-22

TEXT OF ENGLISH ABSTRACT: The object of this research is to reach the balance between the number and weight of ears per unit area. Under the climatic conditions of Yunnan, there is only one peak in tiller production. Our results indicated that a very important stage, i.e., the effective tillering stage, should be inserted in the three accepted developmental stages and then the four stages are characterized by primary establishment, effective tillering, maximum tillering and earfixing. The effective tillers were found to have emerged before and at the fourth or fifth leaf age in cultivars that will elongate at the sixth or seventh leaf respectively. Corresponding to the two kinds of cultivars, the proper population densities at the four stages should be designed to have ratios of $1:2.2^t:3.2^t:2^t$ and $1:3.3^t:4.3^t:3^t$.

AUTHOR: GUAN Kanglin [4619 1660 2651]
CHEN Yaowu [7115 5069 2976]
XIAO Yaowen [5618 5069 2429]

ORG: All of the Laboratory of Plant Physiology, Yunnan Institute of Tropical Botany, Chinese Academy of Sciences

TITLE: "A Preliminary Study on the Physiology of Regeneration Rice"

SOURCE: Beijing ZHONGGUO NONGYE KEXUE [SCIENTIA AGRICULTURA SINICA] in Chinese No 3, 1979 pp 23-30

TEXT OF ENGLISH ABSTRACT: This paper gives an analysis of some experimental results on the physiology of regeneration rice with an explanation for its normal physiological activity and the constitution of yield. It may raise a theoretical base for the culture of regeneration rice.

AUTHOR: GAO Yongcheng [7559 3057 2052]
YANG Zhiwei [2799 0037 3634]

ORG: Both of the Northwestern College of Agriculture, Wugong, Shaanxi Province

TITLE: "Transformation of Susceptible Cotton Cultivars into Fusarium Resistant Ones"*

SOURCE: Beijing ZHONGGUO NONGYE KEXUE [SCIENTIA AGRICULTURA SINICA] in Chinese No 3, 1979 pp 31-40

TEXT OF ENGLISH ABSTRACT: We have found an easy and efficient way to transform the cotton varieties susceptible to Fusarium wilt into resistant ones. This is to sow the cotton seeds in the seedling bed artificially inoculated with Fusarium oxysporum f. sp. vasinfectum. When the seedlings have emerged and the wilt has developed sufficiently, the healthy seedlings are selected and transplanted to artificially inoculated fields, and then the selection process is repeated. The work of selection of resistant plants is carried out twice a year. However, it has to be done incessantly through a series of three to five years; the susceptible varieties will then be transformed into resistant ones gradually. In this way we have now already built up five resistant cotton varieties which were formerly very susceptible to the Fusarium wilt disease.

[Continuation of ZHONGGUO NONGYE KEXUE No 3, 1979 pp 31-40]

* Professor CHOU Yuan [0092 0337] provided counsel. YANG Zhiwei [2799 0037 3634] and GAO Yongcheng [7559 3057 2052] supervised the research in pathology and seed breeding respectively. In addition, ZHANG Yunqing [1728 0061 7230], WANG Hanying [3769 3352 5391], DU Tingbi [2629 1656 4310], ZHANG Sanlin [1728 0005 2651], LI Weiping [2621 4850 1627] and ZHAO Hongquan [6392 1347 0356] took part in the research.

AUTHOR: ZHANG Chenglie [1728 2110 3525]
LU Zhongshu [0712 1813 1859]

ORG: Both of the Department of Biology, Lanzhou University

TITLE: "The Relation between Growth-Inhibiting Substances and Boll-Shedding and Phosphorylation in Cotton"

SOURCE: Beijing ZHONGGUO NONGYE KEXUE [SCIENTIA AGRICULTURA SINICA] in Chinese No 3, 1979 pp 41-45

TEXT OF ENGLISH ABSTRACT: Measurement of activities of growth-inhibiting substances abstracted from young cotton bolls at different times after anthesis showed that the period of heavy abscission of young bolls coincided with the peak of the activities of growth-inhibiting substances. Treatment of the inhibiting substances accelerated the abscission of the treated organs. This "abscission-accelerating substance" caused a marked decrease in incorporation of ^{32}P in the segment of boll tissue and the intact boll into organic and high-energy phosphate compounds and a conspicuous rise in respiratory rate of young boll tissue. It is considered that one of the actions of the "abscission-accelerating substance" is to uncouple the oxidative phosphorylation of young bolls which in turn brings about the cessation of boll growth and eventually leads to the shedding of young bolls.

AUTHOR: GUO Ruilian [6753 3843 1670]
KUANG Peixiang [0562 1014 7449]

ORG: Both of the Institute of Peanut Research, Shandong Province

TITLE: "The Index for Process of the Growth and Development of Peanuts
Yielding 700 Catties of Pods per Mu"*

SOURCE: Beijing ZHONGGUO NONGYE KEXUE [SCIENTIA AGRICULTURA SINICA] in Chinese
No 3, 1979 pp 46-53

TEXT OF ENGLISH ABSTRACT: During the full period of the growth and development of peanuts, there exists a relationship between the strong or weak appearance of the seedlings and the amount of flowers produced and the site of branch-node. The relationship is not only the foundation of fruit-setting rate but also the prerequisite of full-pod rate. The pod-setting stage is thus the foundation of the full-pod rate and correlates with the fruit-setting rate.

Through observation and determination of the high-yield field of 700 catties per mu, it was found that a rule existed in the vegetative growth and reproductive growth as well as in the stage of early growth and latter development together with a corresponding index.

[Continuation of ZHONGGUO NONGYE KEXUE No 3, 1979 pp 46-53]

* SUI Qingwei [7131 3237 5898] and YU Shuntian [0060 7311 3944] took part in some of the research work.

AUTHOR: WANG Yanfeng [3769 1750 6265]

ORG: Jilin Academy of Agriculture

TITLE: "Intercropping and Mixed Cultivation of Various Ecotypes of Soybean"

SOURCE: Beijing ZHONGGUO NONGYE KEXUE [SCIENTIA AGRICULTURA SINICA] in Chinese No 3, 1979 pp 54-59

TEXT OF ENGLISH ABSTRACT: Under highly productive conditions, two ecotypes of soybeans with significant differences in maturity, plant height and leaf type were intercropped (or mixed cultivated). Because of the non-uniformity of their growing stage, the two varieties could make use of the environmental factors in a complementary way for the benefit of their respective growth. The differences in maturity and in morphological structure between the two varieties made a contribution to the improvement of aeration and light intensity in the soybean fields, and led to a higher physical activity of the plants. As the leaf area for photosynthesis became enlarged, photosynthetic efficiency was promoted, the leaf age became elongated and more dry matter accumulated together with a good capacity of transformation, the yields of soybean greatly increased because of more pods per unit area, more seeds and higher 100-seed weight. The four-year experiment demonstrated that yields from intercropping of various ecotypes of soybean were 31.4 percent higher than those from single cropping of the late

[Continuation of ZHONGGUO NONGYE KEXUE No 3, 1979 pp 54-59]

variety, and yields from various ecotypes of soybean mixtures were usually 6.5-9.1 percent higher than those of a single variety grown alone. It was concluded that the practice of intercropping and mixed cropping promised a new way to create a high and stable production of soybean as the soil and soil fertility, as well as the sunlight, could be fully used.

AUTHOR: ZONG Ruijing [1350 1172 7234]
SHAO Pufen [6730 5543 5358]
HU Xiqin [5170 6007 3830]
DAI Lunyu [2071 0178 7183]

ORG: All of the Citrus Institute, Chinese Academy of Agricultural Sciences

TITLE: "Preliminary Study of Fluctuations of Component in the Juice Sac and Rind of Citrus Fruit Granulation"

SOURCE: Beijing ZHONGGUO NONGYE KEXUE [SCIENTIA AGRICULTURA SINICA] in Chinese No 3, 1979 pp 60-64

TEXT OF ENGLISH ABSTRACT: Several physiological and chemical changes in the rind and juice sac of typical samples of normal, incipiently granulated, half granulated and entirely granulated fruits of Pioneer orange (C. sinensis O.) and Satsuma orange (C. unshiu M.) fruits were studied for two years (1977, 1978).

With the development of granulation and rapid reduction of fruit juice, the percentage of total sugar content and dry matter of rind and juice sac both decreased correspondingly. But contrary to the visible phenomenon, the water content of rind and juice sac of the entirely granulated fruit both increased significantly, and the respiratory intensity turned upward. Moreover, the rind

[Continuation of ZHONGGUO NONGYE KEXUE No 3, 1979 pp 60-64]

became thick and the percentage in weight of the rind markedly increased, but the dry weight of the rind per 100 g fresh fruit of the entirely granulated fruit was even heavier than that of the normal ones. These results indicated that in the course of development of granulation, sharp physiological losses occurred in the citrus fruits, and there might exist the trend and possibility that the nutritive materials are shifted from the juice sac to the rind. The dramatic increase of pure cellulose content in the juice sac of the entirely granulated fruits showed senescence might take place in the tissue of the juice sac in the process of granulation.

AUTHOR: LAI Qingwang [6351 1987 2489]
LIU Xun [0491 8113]
DING Xianmao [0002 6343 5399]

ORG: All of the Red Soil Research Institute of Jiangxi

TITLE: "The Year Round Change and Adjustment Techniques of the Organic Matter of the Paddy Soils Derived from the Red Earth"*

SOURCE: Beijing ZHONGGUO NONGYE KEXUE [SCIENTIA AGRICULTURA SINICA] in Chinese No 3, 1979 pp 65-73

TEXT OF ENGLISH ABSTRACT: This research has detected the relationship between rice yield and organic matter content of the paddy soil derived from the red earth. It showed that there exists a positive correlation when the low yield of rice increased to 400 kg/mu, the soil organic matter content reached 2.3%, and 2.5% or more as the rice yield was higher than 500 kg/mu. The change tendency of soil organic matter content in the double rice-green manure system was increased in the early rice cropping, decreased to the extreme in the late rice cropping, and increased once more in the green manure cropping. The accumulation rate of organic matter in the higher fertile soil was slower than in the lower one. To crop mixedly with various species of green manure and fertilize with barnyard manure in order to adjust the carbon-nitrogen ratio would

[Continuation of ZHONGGUO NONGYE KEXUE No 3, 1979 pp 65-73]

not only increase the total organic matter content of the soil but also improve its humus quality and maintain a good relationship between nutrient accumulation and its distribution.

* GU Guocai [0657 0948 5932], LI Zhen [2621 2823] and YANG Qingping [2799 7230 5493] took part in the work.

AUTHOR: DONG Qifen [5516 0366 5358]
ZHANG Xiulan [1728 4423 1526]

ORG: Both of the Institute of Agriculture, Hebei Province

TITLE: "Studies on the Infection of Yellow Stunt of Wheat and Its Infection Regularities"*

SOURCE: Beijing ZHONGGUO NONGYE KEXUE [SCIENTIA AGRICULTURA SINICA] in Chinese No 3, 1979 pp 74-81

TEXT OF ENGLISH ABSTRACT: The insect vectors of Yellow Stunt of wheat are Toxoptera (Schizaphis) graminum, Macrosiphum avenae, Acyrthosiphon dirhodu and Rhopalosiphum prunifoliae. Before winter, the third-leaf stage and tillering stage of wheat are the critical periods of infection. In the spring, the toxin-infection spreads widely at the stage of jointing and booting in April. In addition, the attack of Yellow Stunt of wheat is also related to some ecological factors, such as the climatic conditions and planting pattern. According to studies on the regularities of infection and attack of Yellow Stunt of wheat, we have gained good results on the forecast of this disease together with an integrated control on the basis of agrotechnical measurements.

* WANG Jinshan [3769 6855 1472], FAN Baoying [2868 1405 3576], FU Yirong [0102 2011 2837], CHEN Xiaowen [7115 1420 2429] and PAN Fengqing [3382 7685 1627] took part in the research.

AUTHOR: None

ORG: Scientific Research Group on the Frozen Technique for Sheep Semen of the Bureau of Land Reclamation of Xinjiang; Xinjiang Chemical Institute of the Chinese Academy of Sciences

TITLE: "A Study on the Frozen Technique for Sheep Semen"*

SOURCE: Beijing ZHONGGUO NONGYE KEXUE [SCIENTIA AGRICULTURA SINICA] in Chinese No 3, 1979 pp 82-89

TEXT OF ENGLISH ABSTRACT: With the observation of the microstructure of sheep's sperm and the determination of glutamic-oxaloacetic transaminase and hyaluronidase in the semen, the frozen technique for sheep semen has been studied for years. The results are as follows:

1. To prepare the diluent of high osmotic pressure with galactose, diluting the semen at a low ratio (1:1) and freezing the semen into pellets (0.1-0.15 ml) with dry ice, and thawing the frozen semen rapidly (in 75-80°C water bath), and a large number of sperm used per insemination (about 250 million), two to three times in one estrus.
2. Fertility in one estrus. It was 45.6% obtained from 800 ewes among which 57.4% was from 101 ewes. In 1978, 42% fertility is expected from 6,526 ewes

[Continuation of ZHONGGUO NONGYE KEXUE No 3, 1979 pp 82-89]

for one estrus, among which the fertility is 53.4% in 1,529 ewes and 61.2% in 98 ewes. A high fertility of 71.4% has been achieved in 42 ewes.

3. To add some milk to the diluent will produce a definite protective effect on the frozen sheep semen.

* WANG Lige [3769 4539 9459] of the Institute of Veterinary Medicine and Animal Husbandry, Xinjiang Regional Bureau of Land Reclamation, compiled the data in writing the paper. Gongnaisi Stud Sheep Ranch, State Farm 57, as well as state farms of the 23rd, 101st, 143rd and 151st regiments took part in the work.

AUTHOR: MA Zhiguang [7456 1807 1684]
SEYIN Batu [5331 7299 1572 0956]
REN Zhibi [0117 1807 1732]

ORG: All of the Institute of Grassland, Chinese Academy of Agricultural Sciences

TITLE: "The Studies of Shallow Plowing on the Improvement of Grassland"

SOURCE: Beijing ZHONGGUO NONGYE KEXUE [SCIENTIA AGRICULTURA SINICA] in Chinese No 3, 1979 pp 90-96

TEXT OF ENGLISH ABSTRACT: An experimental work on the improvement of natural grassland was carried out through 1972-1978 by shallow plowing, with a common plow, the grassland dominated by Stipa grandis and Aneurolepidium chinense under a dry climatic condition with an annual mean rainfall of only 9.7 inches.

The ecological habitat of the natural grassland had shown a great change after plowing, the soil became loosened and the water content, as well as the soil temperature and its aeration conditions, improved. The new habitat seemed very suitable for the growth and development of the root-propagated Aneurolepidium chinense. Hence, the succession of vegetation had happened on the secondary bare area. According to the authors' observations, it could be divided into

[Continuation of ZHONGGUO NONGYE KEXUE No 3, 1979 pp 90-96]

four stages: the annual-biennial forb stage, the rhizome herbage stage, the tussock herbage stage and the little semi-frutex stage. Through the studies of the succession order of the vegetation, the authors held that the rhizome herbage stage with Aneurolepidium chinense as the constructive species had a good usability value. During this period, the hay output on the plowed grassland increased 37.9-82.1% as compared with that on the unplowed. The higher forage production would be able to continue for ten years, but if overgrazed (or mowed), it would deteriorate into the little semi-frutex stage. In order to prolong the utilization years of the rhizome herbage stage, an effective measurement must be taken to prevent it from deterioration.

9717

CSO: 4009

END

**END OF
FICHE**

DATE FILMED

8-18-80

D.D.